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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/031,341	01/18/2002	Philippe Dupuy	217694US2PCT	6469

22850 7590 03/26/2004

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1940 DUKE STREET
ALEXANDRIA, VA 22314

EXAMINER

VY, HUNG T

ART UNIT	PAPER NUMBER
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2828

DATE MAILED: 03/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/031,341

Applicant(s)

DUPUY, PHILIPPE

Examiner

Hung T Vy

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _____ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 March 2004.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 13-32 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 13-23 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.


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Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. In response to amendment filed on 03/01/2004, claims 13-32 are pending in this application. Applicant's arguments filed 03/01/2004 have been fully considered and are persuasive. The final of rejections is withdrawn, and a new ground of rejection is presented in the following paragraphs.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

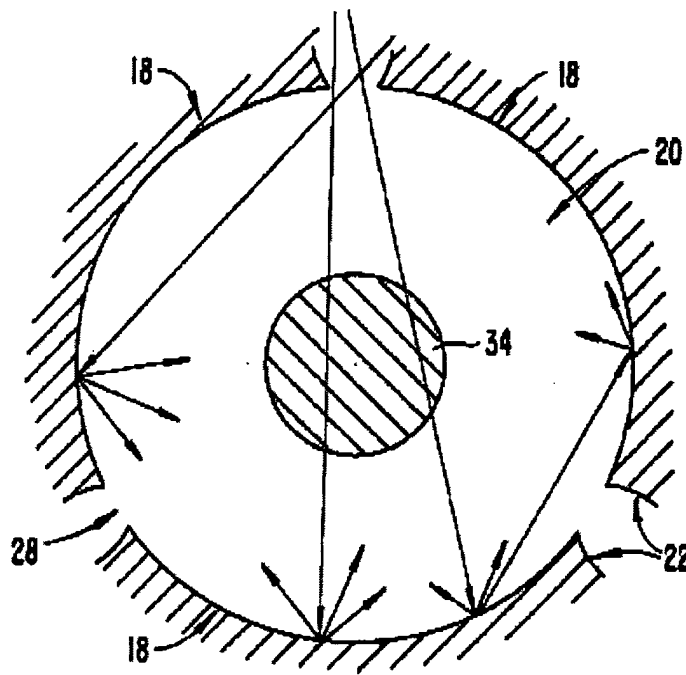
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 13-24 are rejected under 35 U. S. C. § 102 (b) as being anticipated by Chang et al., U.S. patent No. 5,978,407.

Regarding claim 14, Chang et al. discloses an optical pumping module comprising a light amplifying medium (34), at least one light source (30) for optically pumping the amplifying medium (34) and a reflector which encircles the amplifying medium (34) and the wall of the reflector (18) is configured to reflect light from the source, wherein the reflector is partly or totally diffusive (see fig. 5b) and the source (30) is orientated so as to send a beam directly stemming from this source towards the wall of the reflector so that this beam undergoes successive partly or totally diffusive

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reflections thereon and the amplifying medium (34) is optically pumped by the sole light reflected by the wall of the partly or totally diffusive reflector (See fig. 5b or column 5, line 13-17).

**FIG. 5B.**

Regarding claims 15-24, Chang et al. discloses the module, wherein the amplifying medium (34) forms a cylindrical rod (See fig 7b) with a substantially circular base, the light source (30) is for transverse optical pumping of this medium (34), and the wall of the reflector forms a cylinder with generatrices parallel to an axis of the amplifying medium (See fig 5b above), the base of the cylinder formed by the wall of the reflector is selected from substantially regular polygons, ellipses (See fig 6-7), the light source (30) is a light emitter and this light emitter is selected from a laser diode, a laser diode array, a row of laser diode arrays, a stack of laser diode arrays, and a

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combination of the row and the stack, the arrays being parallel to generatrices of the cylinder formed by the wall of the reflector (See fig 7b), the module comprising several blocks (see fig 7b), the light source (30) is placed in a gap formed between two adjacent blocks (See fig 2), each block comprising a planar face (see fig. 7b).

With respect to claims 13, the methods for optically pumping a light amplifying are considered as product by process steps.

Claim Rejections - 35 U.S.C. § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 25-32 are rejected under 35 U.S.C. 103 (a) as being unpatentable over chang et al, U.S. patent No. 5,978,407.

Regarding claim 25-32, Minoru Kojuma discloses method for optical pumping a light-amplifying medium, wherein the wall of the diffusive reflector comprises a diffusive ceramic (See column 1, line 47), and It would have been obvious to one having ordinary skill in the art at the time the invention was made to have different material for diffusive reflector, since it has been held to be within the general skill of a worker in the art to

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select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. In re Leshin, 125 USPQ 416.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hung Vy whose telephone number is (571) 272-1954. The examiner can normally be reached on Monday-Friday 8:30 am - 5:30pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul IP can be reached on (571) 272-1941. The fax numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and (703) 308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.



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Hung T. Vy
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March 16, 2004